Figure 1

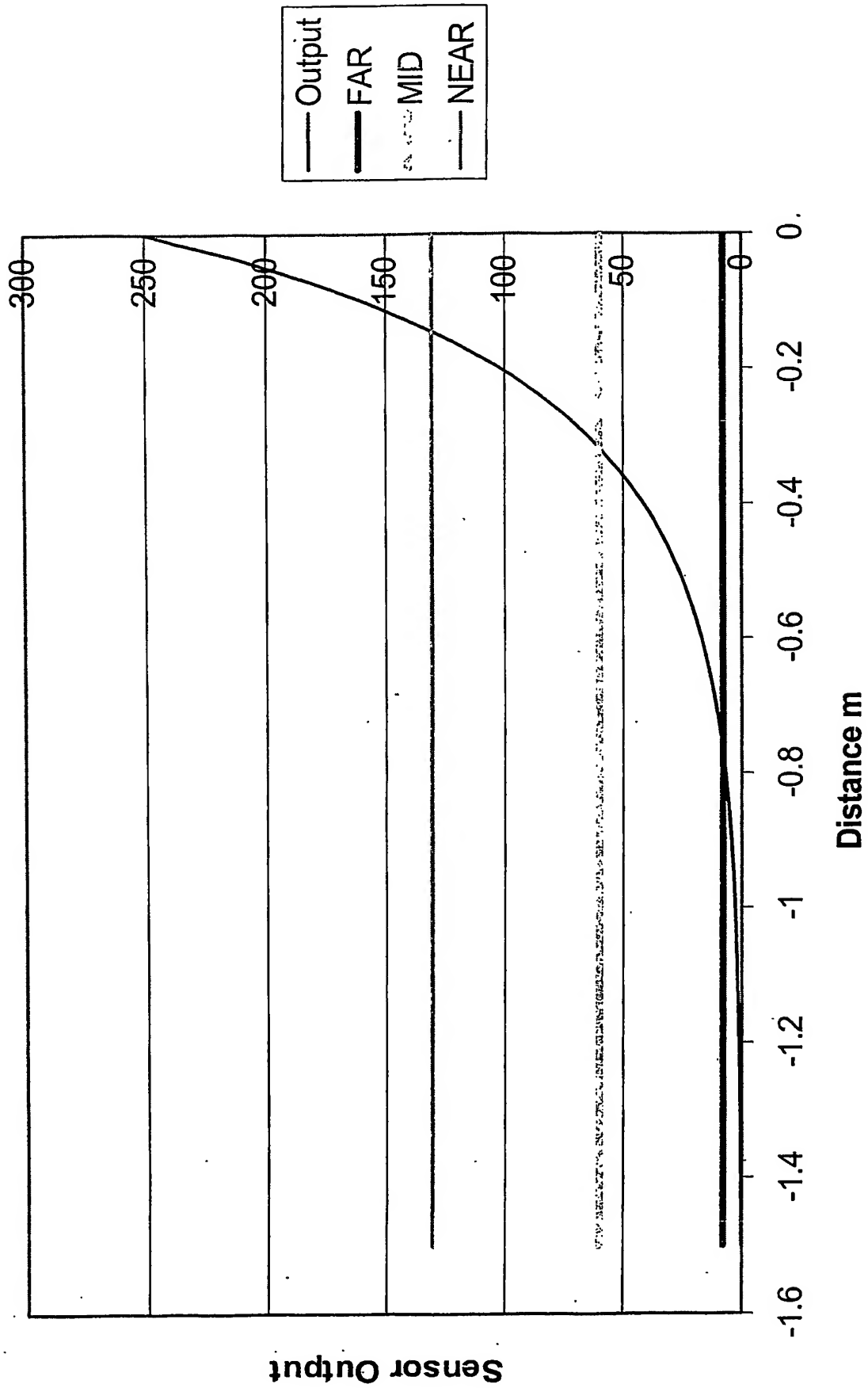
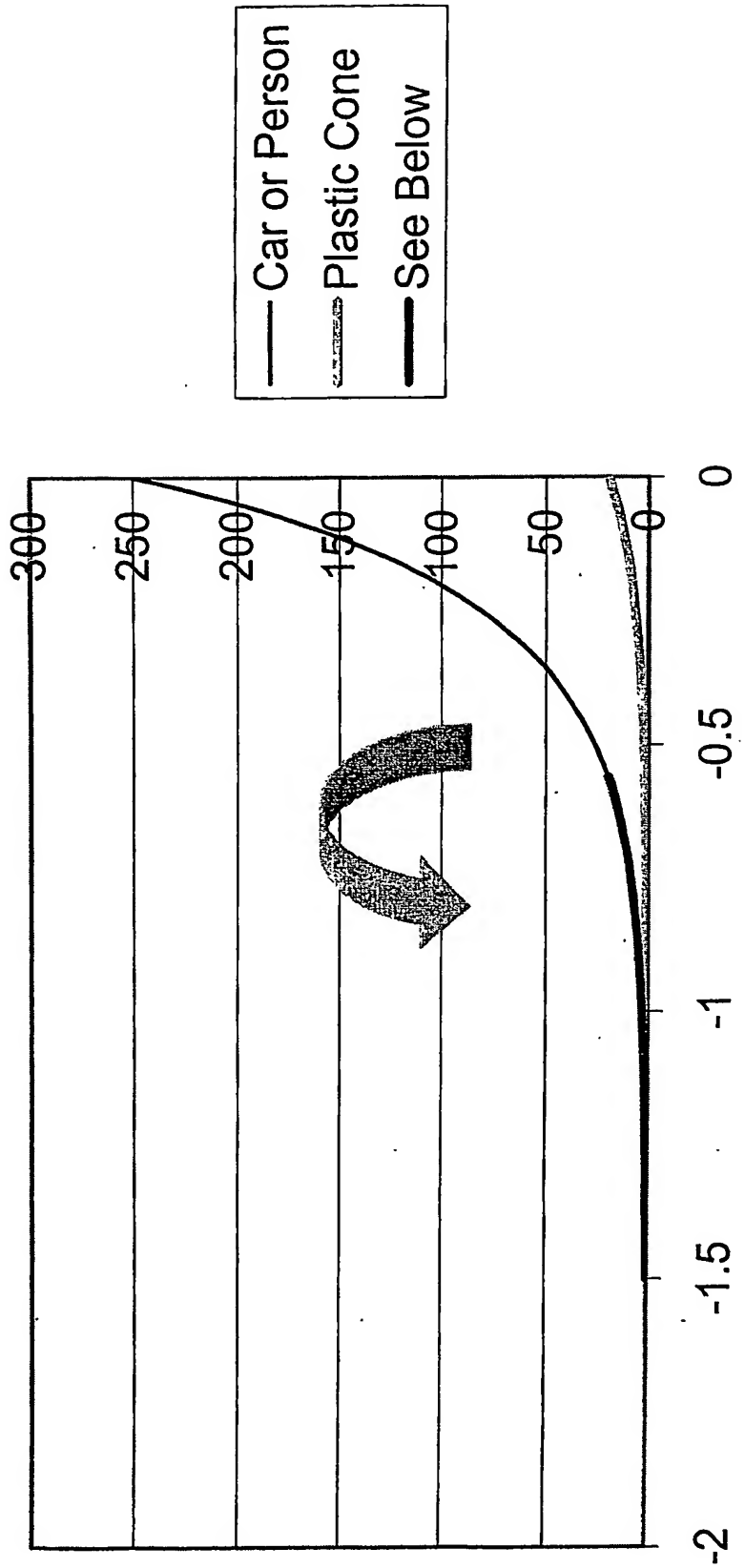

Output
FAR
MID
NEAR
300
250
200
150
100
50
0
0.
-0.2
-0.4
-0.6
-0.8
-1
-1.2
-1.4
-1.6
Distance m
Sensor Output

Figure 2


Car or Person
Plastic Cone
See Below
300
250
200
150
100
50
0
0
-0.5
-1
-1.5
-2

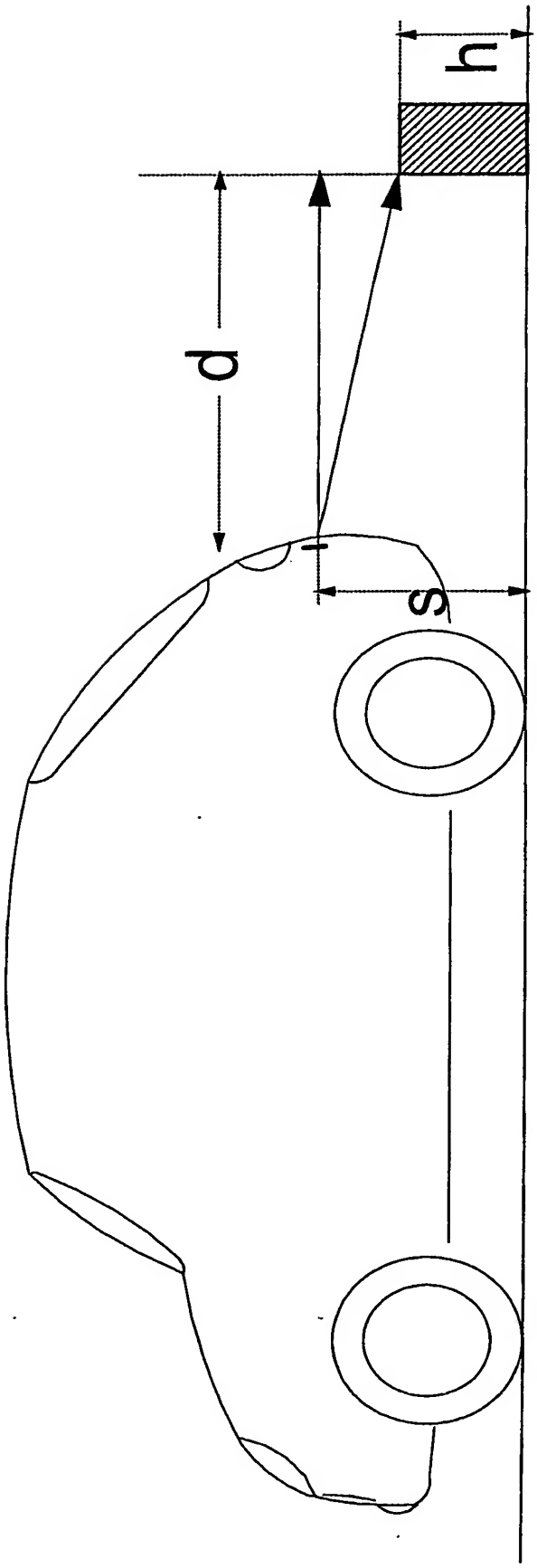


Fig. 3: Reversing towards a Low Obstruction

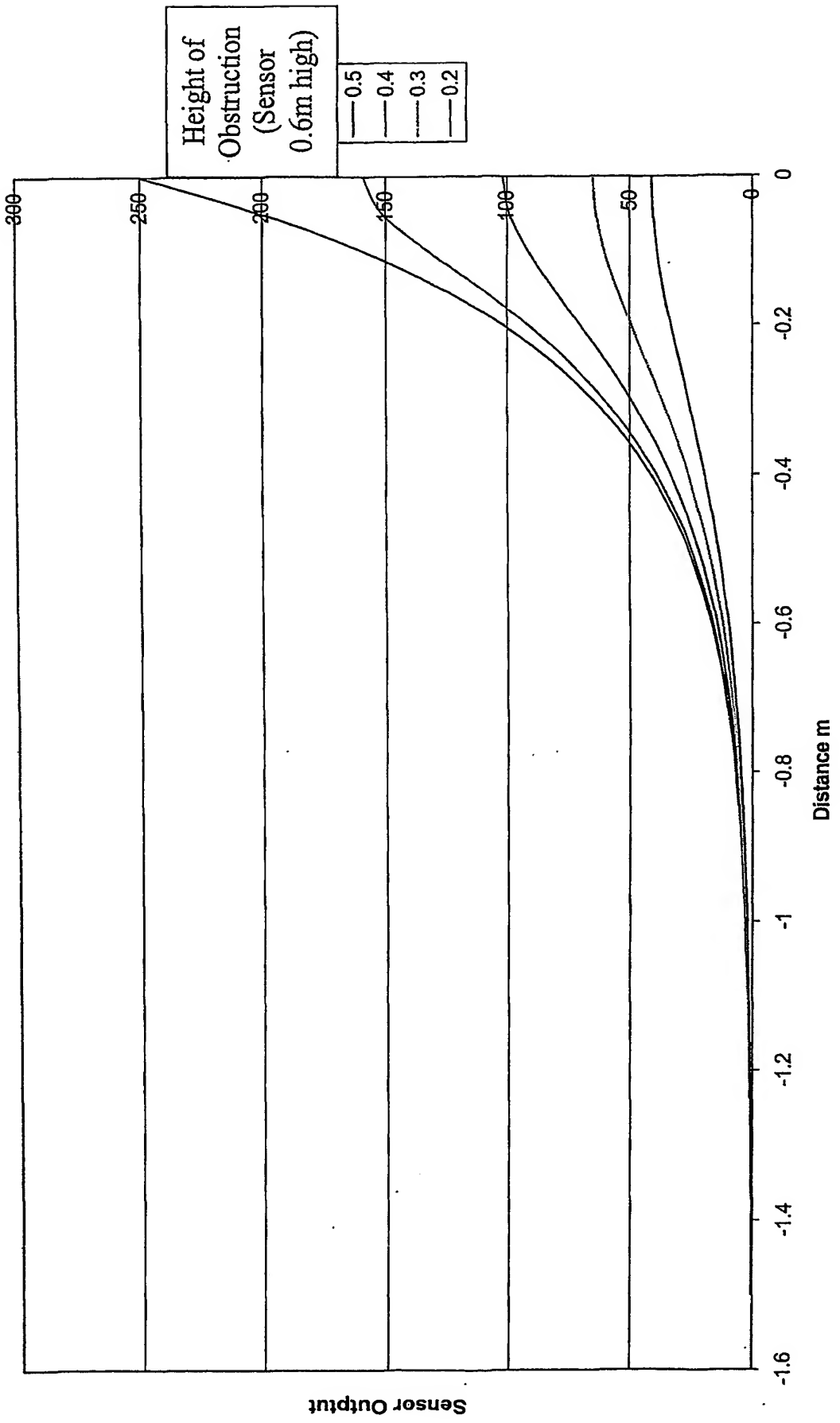

Height of Obstruction (Sensor 0.6m high)
0.5
0.4
0.3
0.2
300
250
200
150
100
50
0
Sensor Output
0
-0.2
-0.4
-0.6
-0.8
-1
-1.2
-1.4
-1.6
Distance m

Figure 4

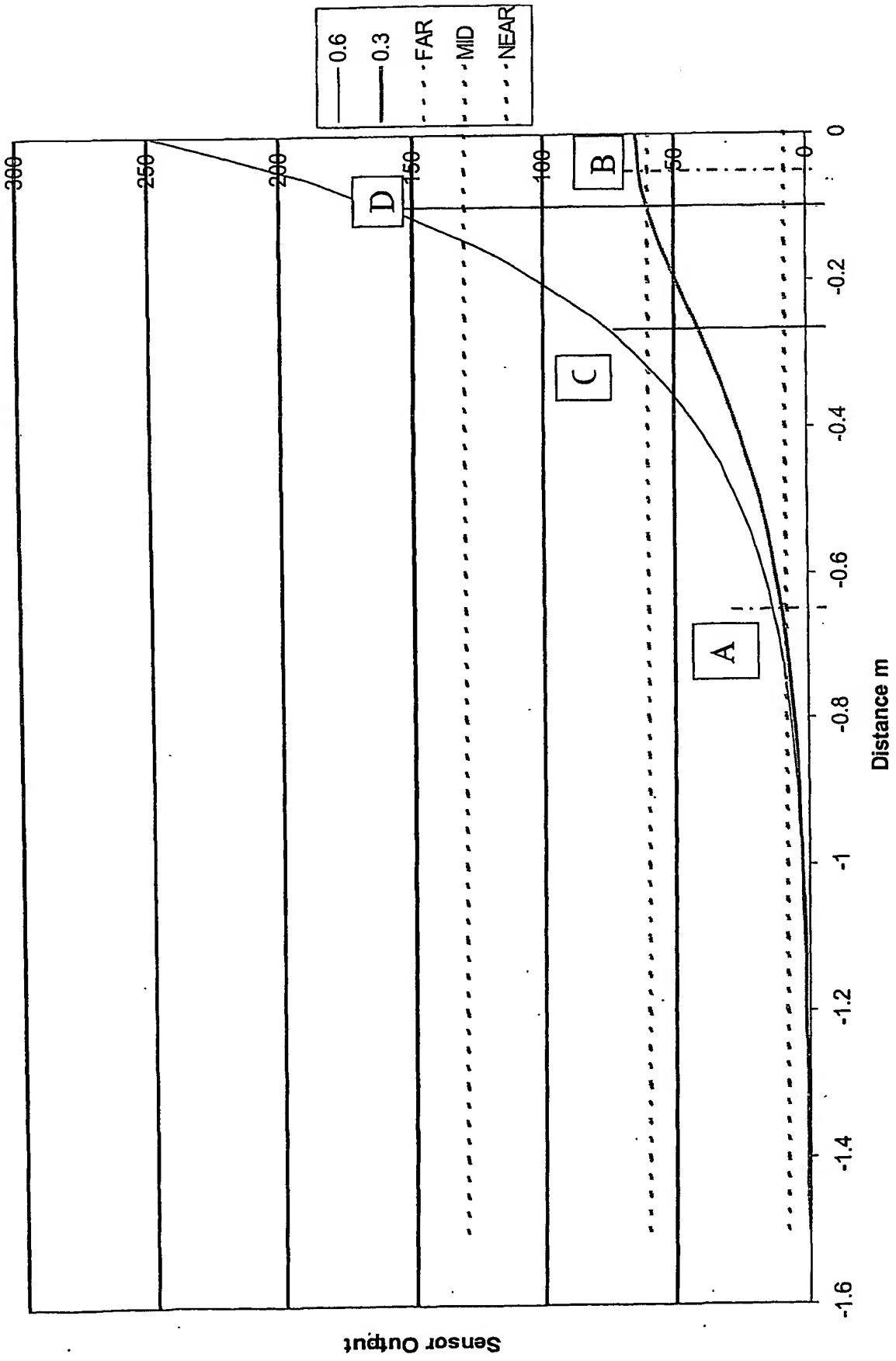


Fig. 5: Low Object Algorithm

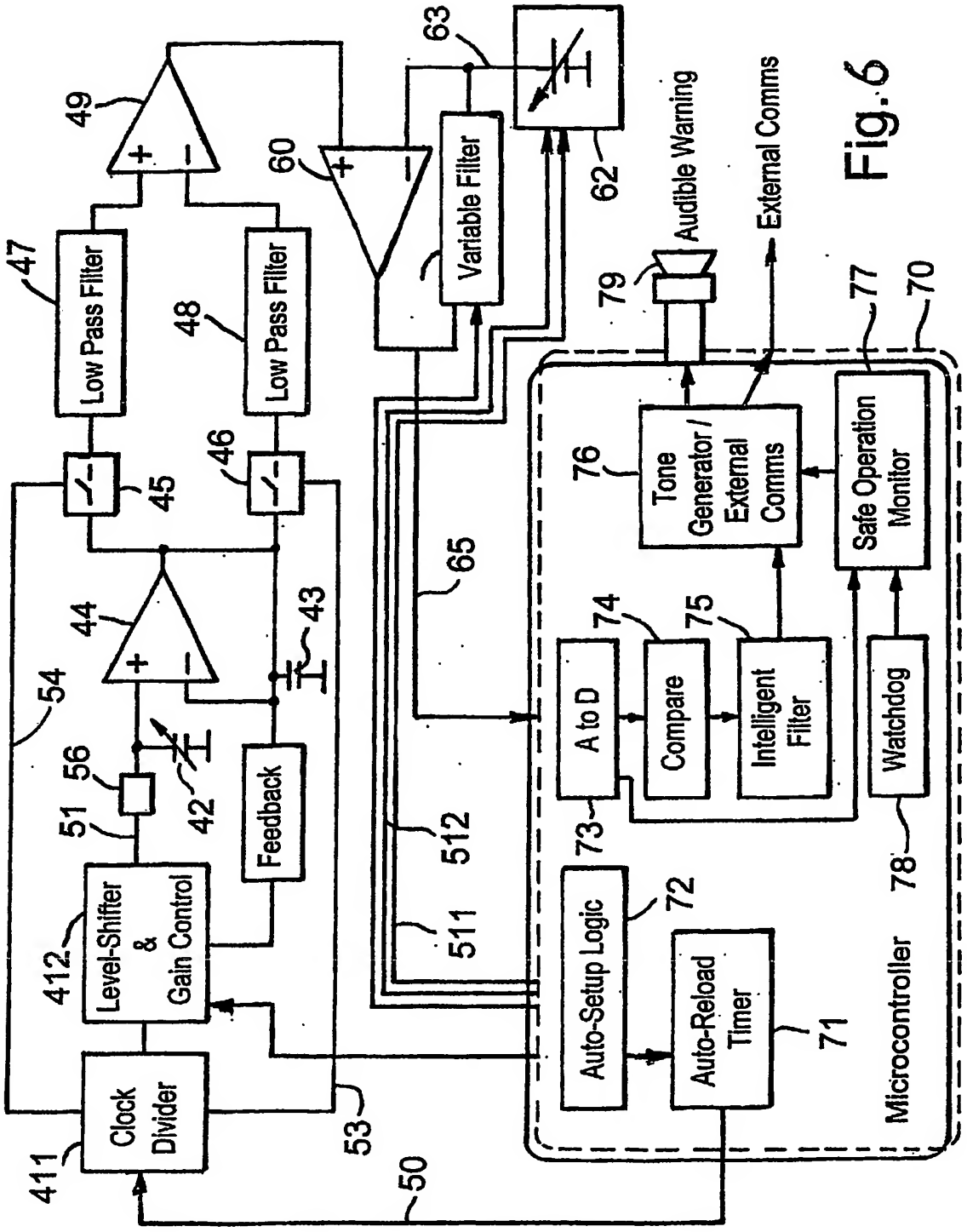
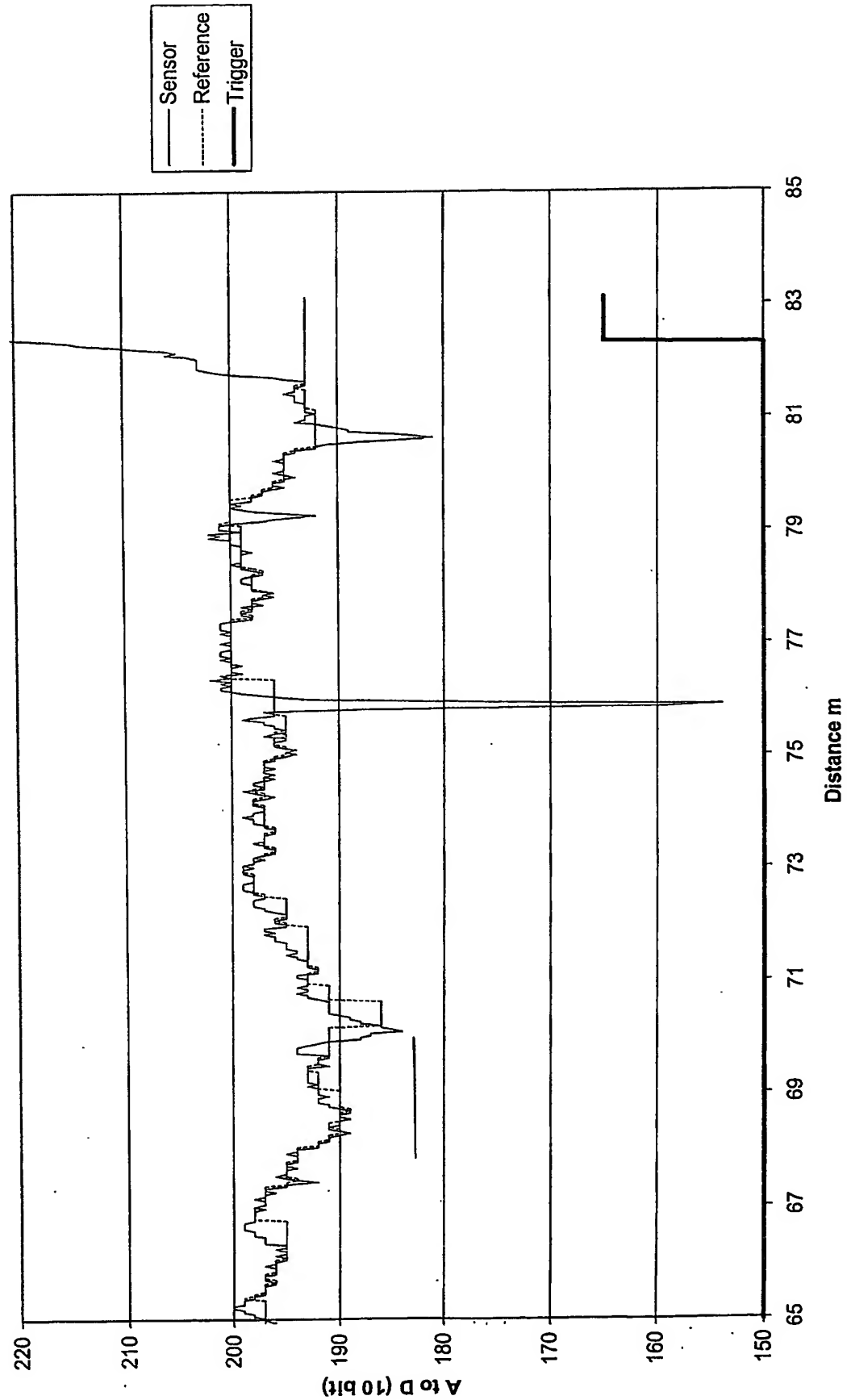

Low Pass Filter
Low Pass Filter
Variable Filter
Audible Warning
External Comms
Level-Shifter & Gain Control
Feedback
Clock Divider
A to D
Compare
Intelligent Filter
Tone Generator / External Comms
Safe Operation Monitor
Watchdog
Auto-Setup Logic
Auto-Reload Timer
Microcontroller
49
60
63
62
47
48
45
46
44
43
54
56
51
42
412
411
53
50
65
512
511
73
74
75
76
77
78
72
71
70
79

Fig. 6

Figure 7


Sensor
Reference
Trigger
A to D (10 bit)
220
210
200
190
180
170
160
150
65
67
69
71
73
75
77
79
81
83
85
Distance m